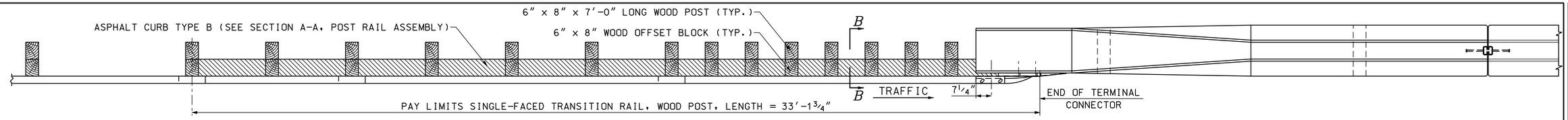
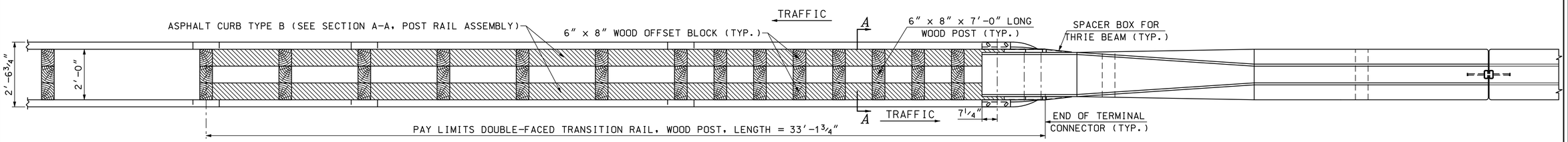
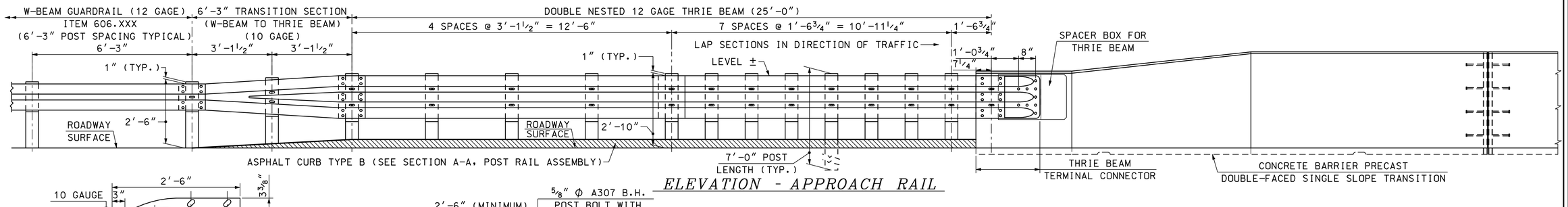


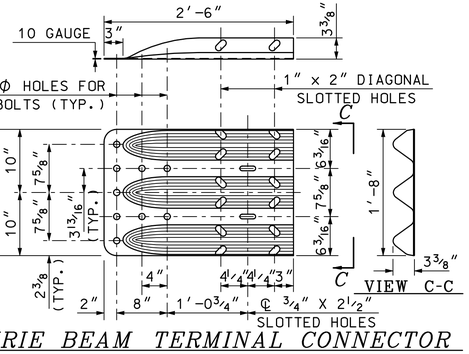
PLAN VIEW - CONCRETE BARRIER TO GUARDRAIL CONNECTION DETAIL (SINGLE-FACED THRIE BEAM GUARDRAIL)



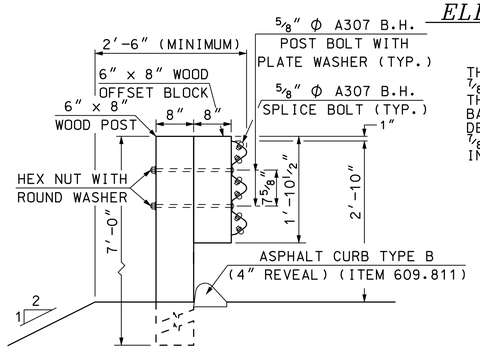
PLAN VIEW - CONCRETE BARRIER TO GUARDRAIL CONNECTION DETAIL (DOUBLE-FACED THRIE BEAM GUARDRAIL)



ELEVATION - APPROACH RAIL

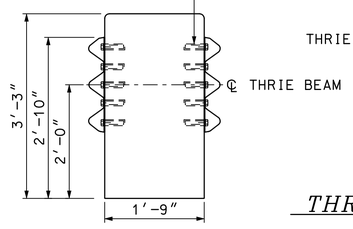


THRIE BEAM TERMINAL CONNECTOR



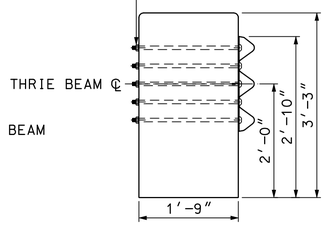
SECTION B-B (POST RAIL ASSEMBLY)

THRIE BEAM SHALL BE FASTENED WITH 7/8" Φ ASTM A325 BOLTS IN EPOXY THREADED INSERTS SET INTO CONCRETE BARRIER. INSERTS SHALL BE CAPABLE OF DEVELOPING THE FULL STRENGTH OF A 7/8" Φ HIGH STRENGTH BOLT. ALL COSTS INCLUDED IN ITEM - SEE NOTE 9.



DOUBLE-FACED THRIE BEAM ATTACHMENT

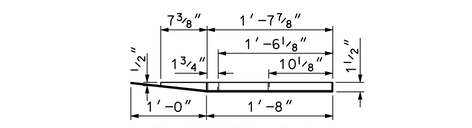
THRIE BEAM SHALL BE FASTENED WITH 7/8" Φ ASTM A325 BOLTS, NUTS AND WASHERS. (EPOXY THREADED INSERTS ARE OPTIONAL). ALL COSTS INCLUDED IN ITEM - SEE NOTE 9.



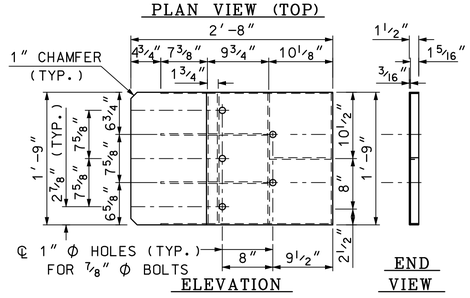
THRIE BEAM ATTACHMENT

GENERAL NOTES

1. ALL THRIE BEAM RAIL, INCLUDING TRANSITION SECTION, SHALL BE GALVANIZED 12 GAUGE. ALL TERMINAL CONNECTORS SHALL BE GALVANIZED 10 GAUGE.
2. CONNECTIONS TO CONCRETE BARRIER SHALL BE APPROVED 7/8" Φ GALVANIZED HIGH STRENGTH THROUGH BOLTS IN CORE DRILLED HOLES. CHECK ACTUAL HOLE SPACING BEFORE CORING BOLT HOLES.
3. ALL CONNECTIONS FOR THE THRIE BEAM RAIL AND TERMINAL CONNECTOR SHALL LAP IN THE DIRECTION OF TRAFFIC.
4. ALL STEEL PLATES FOR SPACER BOXES SHALL BE 3/16" GALVANIZED STEEL PLATES (TYP.), ASTM A709 GRADE 36 (AASHTO M270 GRADE 36), ALL STIFFENER PLATES SHALL BE 1/4" GALVANIZED STEEL PLATES (TYP.).
5. ALL HOLE DIAMETERS FOR SPACER BOXES SHALL BE 1" Φ.
6. STIFFENERS LOCATED ON THE OUTSIDE EDGES OF COVER PLATES SHALL BE WELDED AS FOLLOWS: 3 3/16" CONTINUOUS BACK WELD ON EXTERNAL SIDES AND 3 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
7. STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS: 3 3/16" FILLET WELD BY 1" LONG SPACED AT 2".
8. RECTANGULAR AND TRIANGULAR COVER PLATES SHALL BE WELDED TOGETHER WITH A 3 3/16" CONTINUOUS BACK WELD ON BOTH SIDES.
9. PAID FOR UNDER APPROPRIATE 606 ITEMS, OR AS SHOWN ON PLANS.

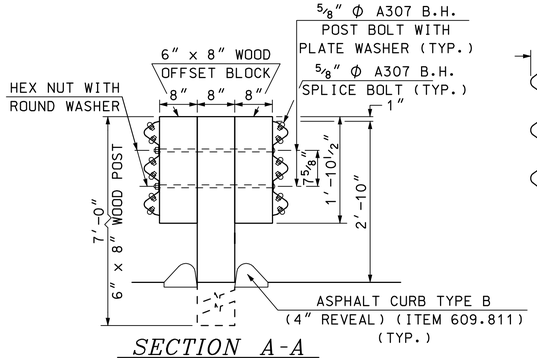


PLAN VIEW (TOP)

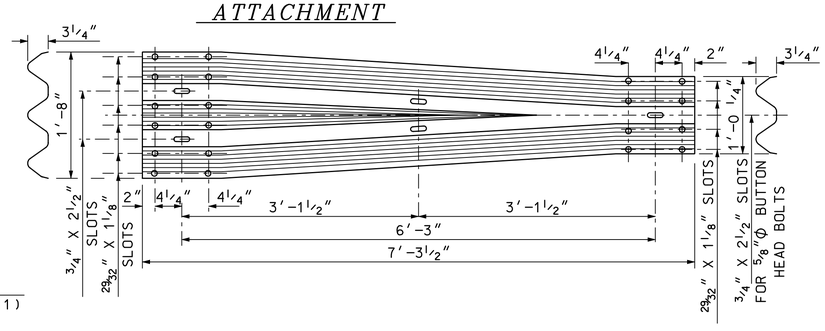


SPACER BOX DETAILS

3/16" GALVANIZED STEEL PLATES (TYP.)
ASTM A709 GRADE 36 (AASHTO M270 GRADE 36)



SECTION A-A (POST RAIL ASSEMBLY)



THRIE BEAM TO W-BEAM TRANSITION SECTION

GUARDRAIL STANDARD

TRANSITION SINGLE SLOPE CONCRETE BARRIER AND GUARDRAIL (WOOD)

STANDARD NO. GR-21

REVISION DATE
06-16-2010
11-05-2010

*.DGN FILE NAME
GR-21

STANDARD PLANS

New Hampshire DOT Department of Transportation

STANDARD NO. GR-21